SAR and Data Links
(formerly Tadiran Spectralink)

PRC-434G/CS

Advanced Dual Mode Personal Survival Radio with GPS

The advanced PRC-434G/CS (Cospas-Sarsat) transponder is a small but powerful long-endurance Personal Survival Radio (PSR) that provides a complete solution for military or paramilitary applications in combat and peacetime environments. With its embedded GPS receiver, large LCD display, and state-of-the-art electronics, the PRC-434G/CS assures precise global positioning, easy navigation and extensive interrogatable two-way messaging. Developed and produced by Elbit Systems SAR and Data Links (formerly Tadiran Spectralink), the PRC-434G/CS is fully interoperable with the ARS-700 and ARS-700G airborne personnel locator systems, and compatible with other NATO SAR systems such as ARS(12)V and RCS-125G.

Operational Highlights

- GPS Location response to interrogations from the airborne system, from another PSR on the ground
- Transponder operation, in response to interrogation with a selective code (one million possible codes)
- Operation at two emergency frequencies (121.5 and 243 MHz)
- Powered by $LiMnO_2$ battery for 30 hours, at a Tx/Rx ratio of 1:10 (over 96 hours in Sleep mode)
- Ten fixed/preprogrammed channels
- Multiple activation capabilities
- External earphone interconnection
- Radio status indication (self-test)
- Programmable data messages can be transmitted from/to the PSR
- One-hand operation
- Integral antenna and option for external antennas

Elbit Systems
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PRC-434G/CS Technical Characteristics

Characteristic	Performance
Frequency Range	225-299.975 MHz + 121.5MHz
Number of Channels	3000 in 25 kHz steps
Programmable UHF Channels	10 + 1 guard
Non-programmable VHF Channel	1 guard (121.5 MHz)
Navigation	40 programmable waypoints
Position Accuracy	GPS – C/A Code/25m
Modulation Type	· AM (Voice or Swept Tone) · FSK (narrow band data) · OOK, PSK for ASARS (transponder)
Activation	· Manual by survivor · Automatic by g-switch, magnetic lanyard, water sensor
Remote Activation	· Beacon mode activation · Range and direction interrogation activation · GPS Lat./Long. interrogation · Navigation mode activation · Data transfer mode activation
Transmit Power Output	· ~1W in UHF frequencies · .1W at 121.5 MHz
Battery Type	$LiMnO_2$
Battery Life	>30 hrs. @ 1:10 T/R ratio
Battery Life Monitor	"Fuel-Gage" circuitry in battery pack
Water-tightness	Withstands 10m water depth immersion
Size (battery & antenna included)	154mm x 85mm x 45mm (6" x 3.35" x 1.77") H x W x D
Weight	<850 gr.
Operating Temperatures	–30°C to +55°C
Cospas/Sarsat Geolocation	Transmission of Cospas-Sarsat protocol (406 MHz)

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